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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,776	06/29/2001	Wolfgang Horn	00 P 14945 US	8889

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PATENT DEPARTMENT
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EXAMINER

PHAM, THOMAS K

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 09/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/896,776

Applicant(s)

HORN ET AL.

Examiner

Thomas K Pham

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 29 June 2001.

2a) ☐ This action is **FINAL**.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 16-32 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 16-32 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☒ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

4) ☐ Interview Summary (PTO-413) Paper No(s) _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other:

Notice to Applicant(s)

1. Claims 16-32 of U.S. Application 09/896776 filed on 06/29/2001 are presented for examination.

DETAILED ACTION

Priority

2. The foreign priority claim filed on 03/08/2000 was not entered because the foreign priority claim was not filed during the time period set forth in 37 CFR 1.55(a)(1). For original applications filed under 35 U.S.C. 111(a) (other than a design application) on or after November 29, 2000, the time period is during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior foreign application. For applications that have entered national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the claim for priority must be made during the pendency of the application and within the time limit set forth in the PCT and the Regulations under the PCT. See 37 CFR 1.55(a)(1)(ii). If applicant desires priority under 35 U.S.C. 119(a)-(d), (f) or 365(a) based upon a prior foreign application, applicant must file a petition for an unintentionally delayed priority claim (37 CFR 1.55(c)). The petition must be accompanied by (1) the claim (i.e., the claim required by 35 U.S.C. 119(a)-(d) and (f) and 37 CFR 1.55) for priority to the prior foreign application, unless previously submitted; (2) a surcharge under 37 CFR 1.17(t); and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.55(a)(1) and the date the claim was filed was unintentional. The Director may require additional information where there is a question

Art Unit: 2121

whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

3. Acknowledgment is made of applicant's claim for foreign priority based on applications filed in GERMANY on 08/11/2000. It is noted, however, that applicant has not filed a certified copies of the 10055168.8 and 10055169.6 applications as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 16-19, 21-23 and 25-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Verissimo et al. U.S. Patent no. 5,841,654 (hereinafter Verissimo).

Regarding claim 16

Verissimo teaches

An industrial controller comprising a plurality of devices, for use in controlling a system including a plurality of components, the controller comprising:

- control means independent of the controlled components (col. 4 lines 65-67, “a computer 20 ... interface device 10.”); and
- component control means relating to the controlled components for supplementing the control means, the component control means implemented using a plurality of technology

Art Unit: 2121

objects corresponding to the components, the technology objects distributable on the devices (col. 6 line 65 to col. 7 line 22, “a functional-level ... to the Fieldbus.”).

Regarding claim 17

Verissimo teaches

- automatically generated communications links between at least two of the technology objects (col. 7 lines 64-67, “The data communications ... personal computers.”).

Regarding claim 18

Verissimo teaches

- technology objects comprise attributes taken into account in the generation of the communications links (col. 7 lines 24-28, “once a user ... mounted devices.”).

Regarding claim 19

Verissimo teaches

- technology objects are distributable on a plurality of devices within a project, the project relating to plurality of control units (col. 9 lines 15-59, “the user chooses ... of the present invention.”).

Regarding claim 21

Verissimo teaches

- the technology object types permit technological scaling of the functionality of the controller (col. 5 line 65 to col. 6 line 11, “the field mounted ... device scheduling.”).

Regarding claim 22

Verissimo teaches

Art Unit: 2121

- technology objects are interleaved to form container objects (col. 11 lines 62-66, “Once the user ... configuration file”).

Regarding claim 23

Verissimo teaches

- further adapted to provide a plurality of views of the technology objects to a user (col. 11 lines 45-55, “The window 128 allows ... acquires his input.”).

Regarding claim 25

Verissimo teaches

- technology objects are represented in the engineering system by graphical elements (fig. 6N).

Regarding claim 26

Verissimo teaches

- the technology objects have types and the technology object types are clustered into one or more technology packages (col. 7 lines 24-32, “once a user has ... the present invention.”).

Regarding claim 27

Verissimo teaches

a method of programming an industrial control system comprising a plurality of devices, the controller being programmed for one or more projects and comprising a plurality of technology objects, the method comprising the steps of:

- providing a technology-neutral control system (col. 7 lines 15-23, “The general purpose ... to the Fieldbus.”);

Art Unit: 2121

- interleaving of the technology objects to form a set of complex technology objects (col. 13 lines 11-25, “The function link ... by the icon 159.”);
- distributing a plurality of the technology objects on a plurality of the devices (col. 9 lines 15-59, “the user chooses ... of the present invention.”); and
- reusing at least one of the complex technology objects in a second project (col. 9 lines 24-28, “the user has selected ... computer is coupled.”).

Regarding claim 28

Verissimo teaches

- attributes of the technology objects are taken into account in generating the communication channels (col. 7 lines 64-67, “The data communications ... personal computers.”).

Regarding claim 29

Verissimo teaches

a method of programming an industrial control system comprising a plurality of devices, the controller being programmed for one or more projects and comprising a plurality of technology objects, the method comprising the steps of:

- providing a technology-neutral control system (col. 7 lines 15-23, “The general purpose ... to the Fieldbus.”);
- instantiating the technology objects (col. 12 lines 24-28, “The toolbar 142 ... linking procedure.”);
- interleaving the technology objects to form a set of complex technology objects for a first project (col. 13 lines 11-25, “The function link ... by the icon 159.”);

Art Unit: 2121

- distributing the technology objects on a plurality of the devices (col. 9 lines 15-59, “the user chooses ... of the present invention.”);
- generating communication channels between the technology objects (col. 7 lines 64-67, “The data communications ... personal computers.”); and
- reusing at least one of the complex technology objects in a second project (col. 9 lines 24-28, “the user has selected ... computer is coupled.”).

Regarding claim 30

Verissimo teaches

a method for programming an industrial controller for a technical process, the method comprising the steps of:

- selecting a plurality of technology objects relevant to a desired application (col. 11 lines 45-50, “The windows 128 ... such as a PID”);
- interleaving the selected technology objects to form technology objects having complex functionality (col. 13 lines 11-25, “The function link ... by the icon 159.”); and
- distributing the interleaved technology objects onto a device (col. 9 lines 15-59, “the user chooses ... of the present invention.”).

Regarding claim 31

Verissimo teaches

- interleaved technology objects may be re-used in a subsequent application of the method (col. 9 lines 24-28, “the user has selected ... computer is coupled.”).

Regarding claim 32

Verissimo teaches

Art Unit: 2121

a system for programming an industrial controller, comprising:

- an industrial control system (abstract);
- means for selecting a plurality of technology objects relevant to a desired application (col. 11 lines 45-50, "The windows 128 ... such as a PID");
- means for interleaving the selected technology objects to form technology objects having complex functionality (col. 13 lines 11-25, "The function link ... by the icon 159."); and
- means for distributing the interleaved technology objects onto a plurality of devices (col. 9 lines 15-59, "the user chooses ... of the present invention.").

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Verissimo in view of Sadre et al. U.S. Patent no. 5,485,620 (hereinafter Sadre).

Regarding claim 20

Verissimo teaches an industrial controller according to claim 16 with the technology objects is distributed among control units but does not teach the functionality of the technology objects is distributed among control units in equidistant communication with one another in real time with clock synchronization. However, Sadre teaches synchronization of the operation units in real time sequential continuous programming manner (col. 12 lines 50-60, "The Transfer Line ...

Art Unit: 2121

control unit 2."). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the synchronization of Sadre with the controller of Verissimo because it would provide for controlling all the units connect in an industrial process effectively and orderly.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Verissimo U.S. Patent no. 5,841,654.

Regarding claim 24

Verissimo teaches an industrial controller according to claim 16 with programming of a technology object but does not teach further adapted for feedback-free programming of a technology object with respect to the other technology objects and the control means. However, nowhere in Verissimo teaches or suggests a programming technique that involved feedback of the function blocks. Therefore, it is obvious to one of ordinary skill in the art to consider Verissimo controller adapted for feedback-free programming of a technology object with respect to other technology objects and the control means.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874. The examiner can normally be reached on Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact Supervisor, *Mr. Anil Khatri*, can be reached on (703) 305-0282.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Thomas Pham
Patent Examiner

TP

September 17, 2003

Ramesh Patel
RAMESH PATEL 9/24/03
PRIMARY EXAMINER
For Anil Khatri